SMOKE ALARM

A SUMMARY REPORT
ON SMOKING IN THE
NORTHWEST TERRITORIES

Northwest Territories Health and Social Services

APRIL 2001

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MINISTER

A Message from the Minister

In December 1999, the Department of Health and Social Services highlighted the prevalence of tobacco use in the NWT and its links to illness and disease in *The NWT Health Status Report*, 1999. The report confirmed that NWT tobacco use is considerably higher than the Canadian average. We also know that more NWT people start smoking before they are 15 years old, and that these smokers are more likely to become lifelong smokers.

Smoke Alarm provides a more in-depth look at smoking in the NWT. The statistics support the conclusion that smoking is a widely established and solidly entrenched behaviour in our communities. The statistics also confirm what we already know to be of particular concern: women smoking during their pregnancy, parents smoking in the presence of infants and young children, and adults and elders smoking with adolescents.

Given the high rates of smoking in the NWT, we now need to take action to protect the immediate and long-term health of our families and children. This report offers us insight as to where we should be targeting our efforts.

Armed with this information, the Department is working with other Government of the Northwest Territories departments to develop a comprehensive strategy aimed at:

- protecting the unborn and very young from tobacco smoke,
- reducing the uptake of smoking by children and adolescents, and
- promoting effective cessation programs and supports for current smokers who are thinking about quitting.

We know there are no easy solutions but with the future health and well-being of almost half the NWT population at stake, solutions must be found.

I encourage you to read this report and join our efforts to create a smoke-free society! Only through a concerted effort by individuals, families, communities and governments can we realize this goal.

Honourable Jane Groenewegen
Minister, Health and Social Services

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Scope of the Report

This report examines smoking behaviour in the Northwest Territories (NWT). It represents an initial effort to define the nature and extent of smoking in the NWT, and calls attention to the fact that smoking is an acute public health concern for most NWT communities. Overall, the intent of *Smoke Alarm* is to provide solid information upon which to base the development of effective smoking prevention and cessation strategies.

Smoke Alarm is a condensed version of a technical report on smoking compiled by the Department of Health and Social Services, with assistance from the NWT Bureau of Statistics and the Department of Education, Culture and Employment. The technical report, *The Facts About Smoking in the Northwest Territories*, offers more in-depth analyses of the social, demographic and environmental factors associated with smoking behaviour among the population of the NWT.

Smoke Alarm provides important new information on smoking patterns in the Northwest Territories based on data from the *1999 Labour Force Survey*[1], the *1996 Northwest Territories Alcohol and Drug Survey*[2], the *1996 National Population Health Survey*[3], and the *1999 School Tobacco Use Survey*[4]. This report is limited to cigarette smoking and does not include information on other forms of tobacco use such as snuff or chewing tobacco, for which there is relatively little data available.[5]

Taken as a whole, the data contained in this document draw a portrait of smokers and smoking in the NWT. *Smoke Alarm* describes smoking behaviour in relation to various factors including sex, age, ethnicity, education and location of residence. As well, it provides useful information on smoking cessation and on the characteristics of people who have successfully quit smoking. This information provides a strong position from which to develop and implement or, alternatively, assess and evaluate programs and strategies aimed at smoking prevention, reduction and cessation. The result is a profile of smoking behaviour across the NWT.

Based upon territorial prevalence of smoking by age and sex, tobacco was estimated to be the source of nearly one quarter of all deaths from cancer, circulatory disease, respiratory diseases and perinatal conditions.[6]

1. The 1999 *Labour Force Survey* provides reliable community-level information on the number of smokers, number of households where at least one person smokes, and the number of smokers who indicated they are "seriously" considering quitting.
2. The 1996 *Northwest Territories Alcohol and Drug Survey* covers a variety of topics including tobacco use. The survey provides territory-level data only, though data are more detailed on smoking behaviour.
3. The 1996 *National Population Health Survey* examines smoking behaviour, however, sample size is much smaller than the *Alcohol and Drug Survey*. The survey provides data which allow for an examination of possible relationships between smoking and self-reported visits to health care providers.
4. The *School Tobacco Use Survey* was sent out to all schools across the Territory, however, it should be noted that not all schools and/or classes responded. Nonetheless, the surveys contain excellent information on smoking behaviour and attitudes of children and youth less than 18 years of age. Reliable estimates are available at a regional level.
5. According to the *1999 NWT School Tobacco Use Survey*, 3% of youth 10 to 17 years of age use chewing tobacco or snuff. The *1996 NWT Alcohol and Drug Survey* reports an estimated 3% of adults 18 years of age and older use chewing tobacco or snuff.
6. Government of the Northwest Territories, *The NWT Health Status Report*, Department of Health and Social Services, 1999: 32.

Smoke Alarm is not a strategy document. Rather, it is an information resource that should prove useful to a wide range of individuals with an interest in understanding smoking behaviour in the North. While written mainly for health care providers and program planners, it will also inform policy makers, community leaders and interested members of the public.

The findings suggest that effective health promotion and intervention strategies must be directly responsive to smoking trends in the NWT, employ a population health framework, and use a multidisciplinary approach to tobacco control.

While it is clear that there is no 'quick fix' solution to the smoking problem in the NWT, it is equally clear that solutions are absolutely necessary.

Key Findings

It has long been known that smoking rates are significantly higher in the North than in the rest of Canada. In fact, cigarette smoking has become an acute public health concern in the Northwest Territories. This report's findings highlight a particularly high prevalence of smoking among NWT adolescents, women of child-bearing years and middle-aged adults. More specifically:

- A significant proportion (42%) of a relatively young population in the NWT is placing its health and well-being at serious risk by smoking.
- Smoking rates among adolescents in the NWT are among the highest in Canada – 27% of 10 to 17 year olds are current smokers.
- More than half (52%) of all young women in the NWT, ages 15 to 17, are current smokers.
- A high proportion (43%) of NWT women in their child-bearing years smoke cigarettes, and many continue to smoke during pregnancy.
- If the current smoking trends persist, the predictable increase in smoking-related illnesses and disease will be significantly compounded by the anticipated increase in age-related illnesses, the result of an aging population.[7]
- Most lifelong smokers in the NWT started smoking by the time they were 18 years old. Early smoking cessation programs must therefore be targeted toward those under the age of 18, and smoking prevention programs need to begin by middle childhood (6 to 8 years of age).

[7] Government of the Northwest Territories, *The NWT Health Status Report*, Department of Health and Social Services, 1999.

In this section, a lifespan approach to smoking is adopted, beginning with intrauterine exposure to smoking, followed by a consideration of characteristics of child and adolescent smokers, and finally a look at adult smokers in the NWT.

Maternal Smokers

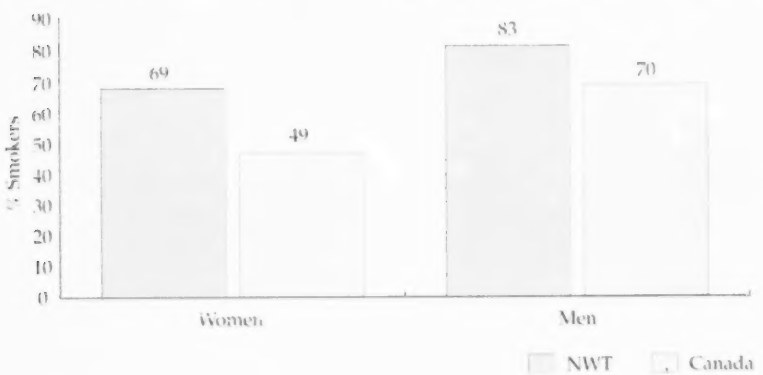
Nearly half of the women (43%) in the NWT considered to be in their child-bearing years (between 18 and 44 years of age) are current smokers, compared with 29% in Canada. Fifty-eight per cent of Aboriginal women 18 to 44 years of age smoke, as compared to 29% of non-Aboriginal women.

Sixty-nine per cent of NWT women who indicated they were smoking at the time of their last pregnancy continued to smoke while pregnant, while only 31% reported smoking cessation during pregnancy. In Canada, 51% stopped smoking during pregnancy. Not only do a larger percentage of NWT women of child-bearing years smoke as compared to Canada, but NWT smokers who become pregnant are less likely to quit.

Studies have shown that women are more likely to quit early in their pregnancy if they are living with a non-smoker.[*] The high prevalence of smoking in the NWT may partially account for why pregnant women find it so difficult to quit, since they are likely to be living in households where other smokers are present. An estimated 83% of NWT men continued to smoke while their spouses or partners were pregnant, compared to 70% for Canada as a whole (see Figure 1).

Figure 1

Parents who Continued to Smoke during Pregnancy, NWT and Canada 1996.



Source: *1996 NWT and Canada Alcohol and Drug Surveys*, NWT Bureau of Statistics

[*] Health Canada, *Smoking and Pregnancy: A Woman's Dilemma*, Minister of Supply and Services Canada, 1995

Mom, Baby and Cigarette Smoking

- *Every time an expectant mother smokes she exposes the fetus to a mixture of chemicals found in tobacco smoke, many of them carcinogenic.*
- *Exposure to tobacco smoke causes a decreased transfer of amino acids (considered to be protein 'building blocks') across the placenta to the baby, a decreased availability of zinc (a mineral essential to growth), and increased abnormalities in the membranes of the placenta.*
- *A woman who quits within the first trimester of her pregnancy significantly lowers her risk of delivering a premature baby, or having a baby with smoking-related health problems.*

Many children in the NWT experienced the effects of smoking before they were even born. No one knows whether prenatal exposure to nicotine is a predisposing factor to taking up smoking, but the adverse effects of maternal smoking have been well documented.

Research on teen attitudes has shown that smoking represents a symbol of belonging to a social group, particulary in early secondary school.

– Health Canada

Smoking in adolescence is often paired with other behaviours which have an increased health risk, such as drinking, drug abuse, risk-taking, and early sexual activity. Some research suggests that adolescent smokers have lower self-esteem than adolescent non-smokers.[15]

"Tobacco... holds special status as a 'gateway' substance in the development of other drug dependencies not only because tobacco use reliably precedes use of illicit drugs, but also because use of tobacco is more likely to escalate to dependent patterns of use of most other dependence-producing drugs...."[16]

ERRATA
Page 4, paragraph 2

The second sentence should read:

Nineteen percent of children and adolescents between 10 and 17 years of age smoke on a daily basis, and only 8% of that age group are occasional smokers.

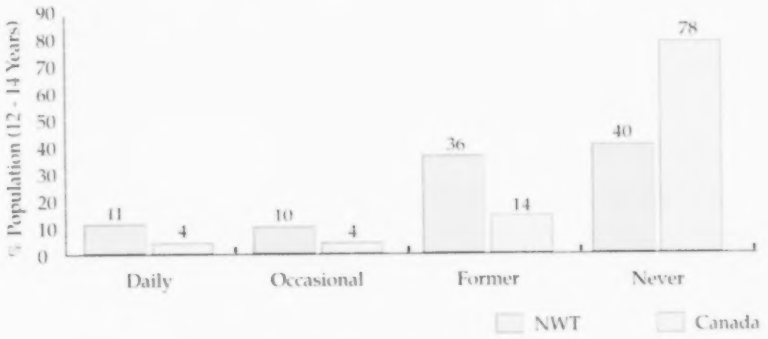
Child and Adolescent Smokers[9]

The vast majority of adult smokers started smoking in their teens.[10] In light of this well-documented finding, prevention of smoking initiation in adolescents is fundamental to reducing smoking prevalence.[11] It is also clear that smoking initiation is the result of multiple factors that come into play at varying stages of youth development. Adolescence is a period of social, psychological and biological transition. For some, smoking is adopted as a coping mechanism or as a way to achieve self-enhancement, particularly for teens with poor self-esteem.[12] Self-confidence and personal adaptation skills are two areas identified as 'buffers' which can help to neutralize peer group pressure.[13]

Results from the *1999 School Tobacco Use Survey* indicate that approximately 27% of all NWT children and adolescents 10 to 17 years of age are current smokers. Nineteen per cent of current young smokers smoke on a daily basis, and only 8% are occasional smokers. A further 30% identify themselves as former smokers. Thus, only 41% of all NWT children and adolescents between 10 and 17 years of age report that they have never smoked a cigarette.[14]

NWT adolescents between 12 and 14 years of age are twice as likely as their Canadian peers to be smokers. They are also more than twice as likely to be former smokers. Finally, 78% of Canadian adolescents between 12 and 14 years of age have never smoked, compared to only 40% of NWT adolescents (see Figure 2).

Figure 2
Smoking Status, Adolescents 12 - 14 Years of Age, NWT 1999 and Canada 1996.



Source: *1999 NWT School Tobacco Use Survey* and *1996 National Population Health Survey*
Note: Two per cent of NWT adolescents did not provide answers.

[9] In this report, *child* refers to 5 to 11 year olds and *adolescent* refers to young persons 12 to 17 years of age.
[10] Centers for Disease Control, "Preventing Tobacco Use Among Young People: A Report of the Surgeon General Executive Summary", *Morbidity and Mortality Weekly Report*, Volume 43, 1994.
[11] Chen, Jiajon and J. Wayne, "Age of smoking initiation: Implications for quitting", *Health Reports*, Volume 9, 1998: 39-46.
[12] Penny, G.N. and J.O. Robinson, "Psychological Resources and Cigarette Smoking in Adolescents", *BJP*, Volume 77, 1986: 351-357.
[13] Tyas, Suzanne and Linda L. Pederson, "Psychosocial factors related to adolescent smoking: a critical review of the literature", *Tobacco Control*, Volume 7, 1998: 409-420.
[14] Two per cent did not provide an answer.
[15] Health Canada, *Cigarette Smoking and Young Women's Presentation of Self*, Minister of National Health and Welfare, 1986.
[16] Henningfield, Jack E. *et al.*, "Involvement of Tobacco in Alcoholism and Illicit Drug Use", *BJA*, Volume 85, 1990: 283.

The process of becoming a smoker is complex.[17] As well, the decision to smoke does not necessarily follow a sequential pattern of experimentation and progressive increase in the frequency of smoking. Adolescent smoking initiation is often an irregular process characterized by a 'stop and start' pattern of smoking behaviour. This suggests that occasional and former smokers are important groups to consider when looking at smoking status in the NWT, since they include those who are experimenting with smoking. 'Experimenters' are more likely to become smokers at a later date than those who have never smoked.

Adolescence – 12 to 17 years of age – is a critical period for initiating smoking behaviour.

By mid-adolescence, a significant number of NWT youth have moved from experimentation to regular, habitual smoking. The risk of smoking initiation increases sharply between 12 to 15 years of age, making this a critical period. At age 12, approximately 10% of adolescents are current smokers. By age 15, an estimated 50% smoke. This suggests that 11 to 12 year olds are experimenting with smoking and 13 to 14 years olds are making the choice to smoke. This information is especially compelling in light of recent research findings that reveal a significant relationship between age at smoking initiation and smoking cessation. The earlier an adolescent starts to smoke, the less likely he/she will quit successfully as an adult.[18]

In the NWT, by 18 years of age most people who are going to smoke have already started.

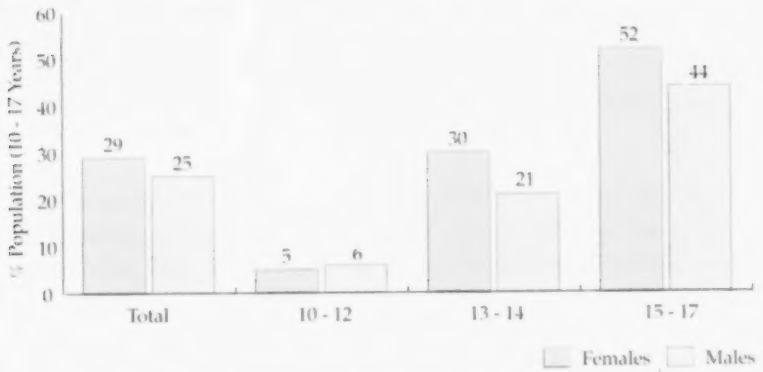
These findings point to the critical importance of early intervention strategies to combat smoking, starting in the primary grades and continuing through the high school years.

Age

Age appears to be one of the most dominant factors related to smoking behaviour among NWT youth (see Figure 3). Older adolescents are more likely to be current smokers. In 1999, the smoking rate among children 10 to 12 years old was 6%. This increased to 25% for adolescents between 13 to 14 years of age and to 48% for those between 15 and 17 years of age.[19]

Figure 3

Current Child and Adolescent Smokers by Age and Sex, NWT 1999.



Source: *1999 NWT School Tobacco Use Survey*

[17] O'Loughlin, Jennifer, *et al.*, "One-year predictors of smoking initiation and of continued smoking among elementary school children in multiethnic, low-income, inner-city neighbourhoods", *Tobacco Control*, Volume 7, 1998: 268-275.

[18] Khuder, Sadik A. *et al.*, "Age at Smoking Onset and its Effect on Smoking Cessation", *Addictive Behaviours*, Volume 24, 1999: 673-677. (See also, Taioli, E. and E. L. Wynder, "Effect of the age at which smoking begins on frequency of smoking in adulthood", *NEJM*, Volume 325, 1991: 968-969.)

[19] Three per cent of 10 to 14 year olds and 1% of 15 to 17 year olds did not provide an answer.

Overall, the smoking pattern among adolescents appears to be closely associated with smoking rates among adults: where adult smoking rates are high, the rates among youth are also high.

Under the terms of the federal Tobacco Act T-11.5, c.13, it is illegal to sell cigarettes to people less than 18 years of age. However, only 36% of minors who attempted to purchase tobacco were asked their age. When attempting to purchase cigarettes, 47% of 10 to 14 years olds and 32% of 15 to 17 year olds were asked their age.[21]

The probability of quitting is also associated with the age of smoking uptake. Those who begin to smoke at an early age are less likely to quit later in life.

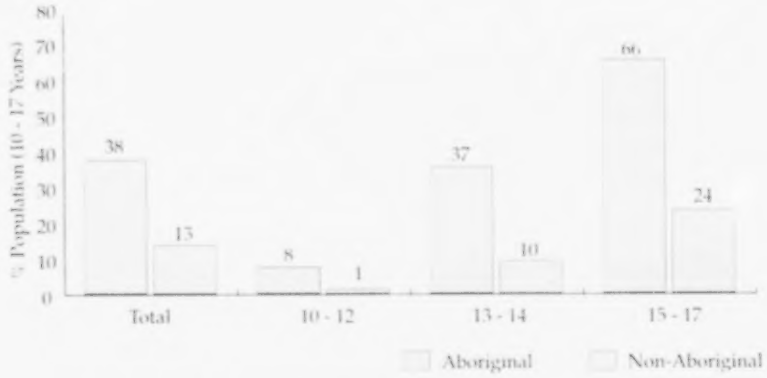
Sex

In the NWT, sex differences in smoking appear when adolescents reach 13 to 14 years of age, with females more likely to be current smokers than males (see Figure 3). An estimated 52% of females between 15 and 17 years of age indicated they smoke, compared to 44% of males in the same age group. Nationally, sex differences in smoking are minimal in the adolescent population, with women only slightly more likely than men to be current smokers.[2]

Ethnicity

Ethnic status seems to play an important role in determining smoking behaviour among adolescents. Aboriginal children and adolescents are about three times more likely than their non-Aboriginal counterparts to be current smokers. This difference is present for all age groups. Aboriginal children 10 to 12 years of age are eight times more likely to smoke (8%) than non-Aboriginal children (1%). Among Aboriginal adolescents 13 to 14 years of age, an estimated 37% indicated they smoke, compared to 10% for non-Aboriginal adolescents (see Figure 4). Sixty-six per cent of Aboriginal adolescents 15 to 17 years of age smoke – more than double the rate among non-Aboriginal adolescents of this age group (24%).

Figure 4
Current Child and Adolescent Smokers by Age and Ethnicity, NWT 1999.



Source: *1999 NWT School Tobacco Use Survey*

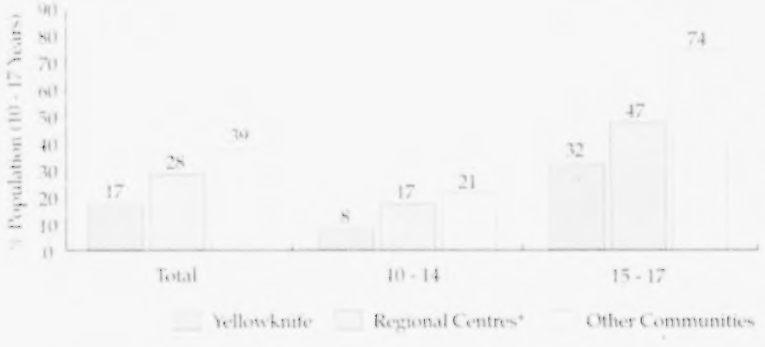
Although there are striking differences in smoking behaviour between Aboriginal and non-Aboriginal children and adolescents, significant variation also exists among Aboriginal groups. For example, in the 10 to 17 year old group, 35% Métis, 36% Dene and 46% Inuit are current smokers. The highest smoking rates occur among Inuit and Dene girls between 15 and 17 years of age (78% and 73% respectively).

[2] Health Canada, *1994 Youth Smoking Survey*, 1996
[21] *1999 NWT School Tobacco Use Survey*

The prevalence of child and adolescent smoking shows the same relationship to community size as it does for adult smokers (see Figure 5). In Yellowknife, an estimated 17% of children and adolescents between 10 and 17 years of age are current smokers, compared to 28% in the regional centres, and 39% in the other smaller communities of the NWT. Prevalence of smoking behaviour is significantly higher for adolescents 15 to 17 years of age and increases with more remote geographic locations; 32% in Yellowknife, 47% in the regional centres and 74% for other smaller communities.

Figure 5

Current Child and Adolescent Smokers by Age and Community Type, NWT 1999.



Source: *1999 NWT School Tobacco Use Survey*

* Regional Centres include Fort Smith, Hay River and Inuvik

The number of cigarettes smoked provides an indication of the level of exposure to the many hazardous substances found in tobacco smoke and the degree of an individual's addiction. Although smoking prevalence is higher among Aboriginal adolescents, non-Aboriginal smokers between 15 and 17 years of age consume about 12 cigarettes per day. Aboriginal smokers in the same age group consume an average of 9 cigarettes per day (see Figure 6).

The Tobacco Restraint Act

- *Raises the legal age for buying tobacco products from 16 to 18 years of age.*
- *Removes vending machines from most public places.*
- *Increases the penalties for selling tobacco to minors from a maximum of $100 to a new maximum of $50,000 for repeated offences.*

Results of an A.C. Nielsen 'secret shopper' test on Canadian retailers for Health Canada:

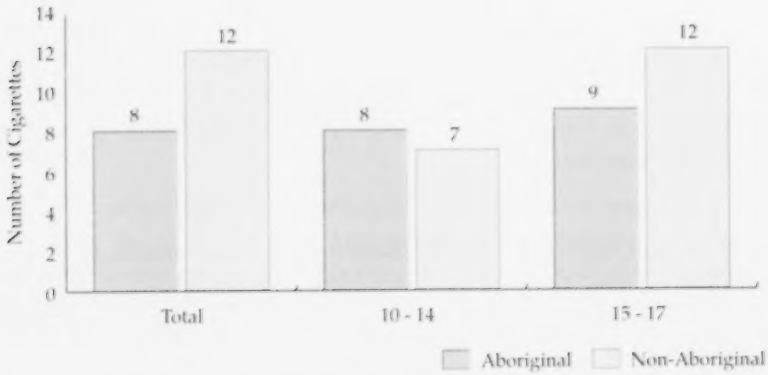
- *Convenience chains are the most likely to obey the law.*
- *Gas station outlets are the least likely to obey the law.*
- *The younger the teen-aged shopper, the more likely a sale will be refused.*
- *Retailers are more likely to sell to underage girls than boys.*
- *Teenage store clerks, and those over 65, are the most likely to sell to teenagers.*[22]

In the NWT, only one-third of minors who attempted to purchase tobacco were refused by store owners. This suggests that existing laws regarding the sale of tobacco to minors require more rigorous promotion and enforcement.

Physicians for a Smoke-Free Canada. *Tobacco in Canada*. September 1999.

Figure 6

Average Number of Cigarettes Consumed per Day, Daily Smokers, NWT 1999.



Source: *1999 NWT School Tobacco Use Survey*

Adult Smokers[23]

Approximately 12,000 people 18 years of age and older are current smokers in the NWT. This represents 42% of the population in this age group, as compared to an estimated 25% of the general Canadian population of the same age group who smoke.[24]

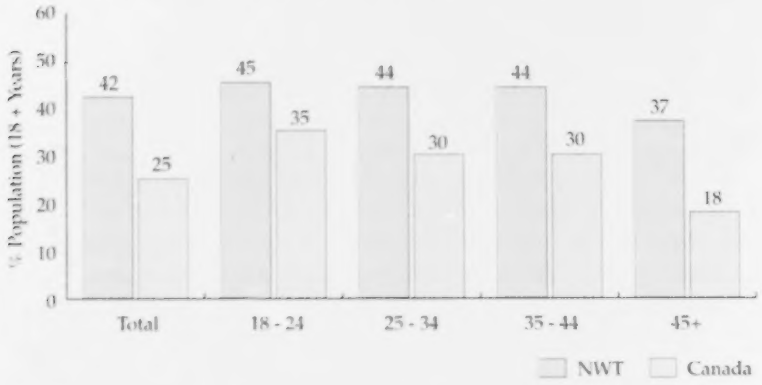
Differences in smoking prevalence between the NWT and Canada are also evident in every age group (see Figure 7). By 18 years of age, approximately 45% of adults in the NWT smoke, and the smoking rate remains nearly this high up until age 50. An estimated 37% of the NWT population 45 years of age and older are current smokers, compared to 18% in Canada. This pattern of NWT smoking behaviour suggests that once people start to smoke, they are less likely to quit than smokers in southern Canada.

[23] In this report, *adult* refers to persons 18 years of age and older.

[24] Comparisons between the NWT and Canada should be made with some caution as questions regarding smoking behaviour in the *1999 Northwest Territories Labour Force Survey* and the *1999 Canadian Tobacco Use Monitoring Survey* were somewhat different. Moreover, proxy responses were accepted in the *1999 Northwest Territories Labour Force Survey*, which may have resulted in an under-estimation of reported smoking rates.

Figure 7

Current Adult Smokers by Age, NWT and Canada 1999.



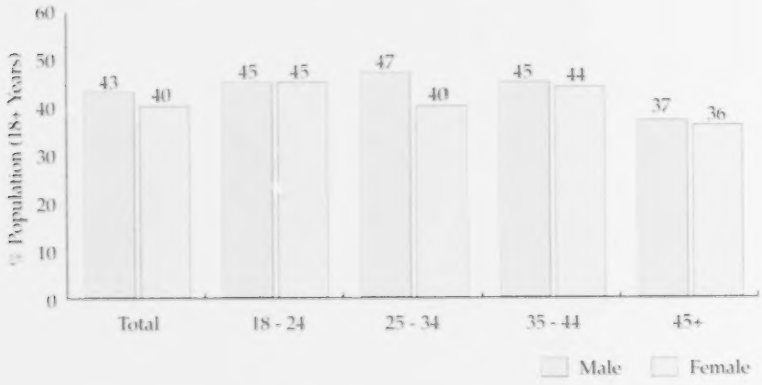
Source: *1999 NWT Labour Force Survey; 1999 Canadian Tobacco Use Monitoring Survey*

Sex and Age

In general, differences in smoking rates between men and women in the NWT are minor (see Figure 8). Men are slightly more likely (43%) than women (40%) to be current smokers. Similar smoking patterns are exhibited for men and women in the 35 to 44 and 45+ age groups. Women between 18 and 24 years of age are just as likely to smoke as their male counterparts (45%). However, age-related differences are more apparent among the 25 to 34 year-old population. Smoking is more prevalent among adults less than 45 years of age.

Figure 8

Current Adult Smokers by Age and Sex, NWT 1999.



Source: *1999 NWT Labour Force Survey*; NWT Bureau of Statistics

Psycho-Social Factors Associated with Smoking

- *Stress, distress or depression are important factors in the initiation and maintenance of habitual smoking.*
- *People in lower socio-economic levels may have limited access to resources ('social capital') which might otherwise help them to develop effective coping strategies.*
- *People who hold a more negative perception of their social environment may be more likely to engage in unhealthy lifestyle activities, including smoking cigarettes.*

Socio-Economic Status

Socio-economic status (SES), measured by educational attainment, occupation and income levels, is strongly related to smoking prevalence. Research findings have consistently shown a direct relationship between occupation, income, education and smoking. Smoking rates tend to be higher among people with lower SES, and lower among people with higher SES.

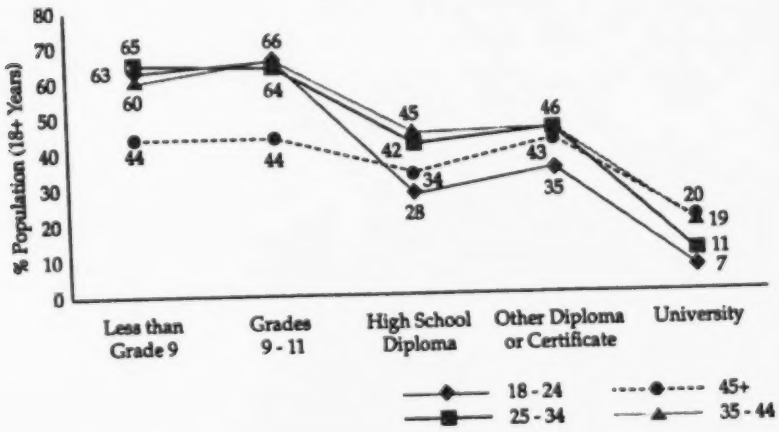
In the NWT, ethnicity is closely associated with socio-economic status. Aboriginal people tend to have lower levels of education and income compared to non-Aboriginals. For example, 51% of the Aboriginal population over 17 years of age have less than a high school education with no certificate or diploma, compared to 9% of the non-Aboriginal population. Approximately 2% of the adult Aboriginal population have a university degree, compared to 25% of the non-Aboriginal population.

Education

Individuals with lower levels of education tend to be less aware or knowledgeable about health issues, and about smoking-related diseases in particular. In the NWT, an inverse relationship between smoking prevalence and educational level is strongly apparent in the 18 to 24, 25 to 34 and 35 to 44 age groups (see Figure 9). For example, for the 25 to 34 age group, current smoking rates range from a high of 65% among people with less than a grade nine education to 11% among people with a university degree. For those between 35 and 44 years of age, smoking rates decline from 66% among those with some high school education to 19% among those with a university degree.

Figure 9

Current Adult Smokers by Age and Education, NWT 1999.

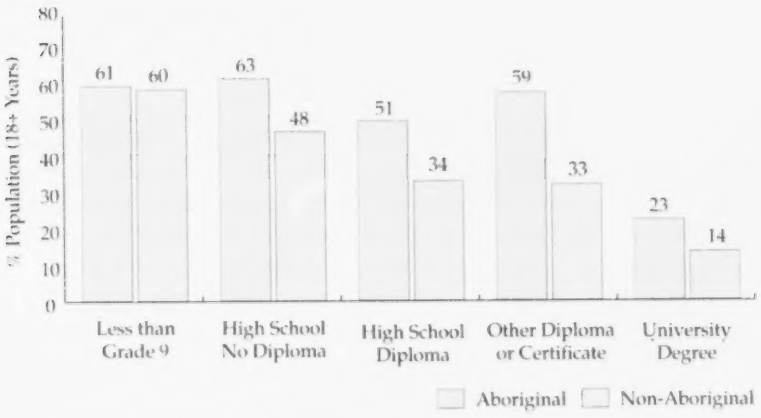


Source: *1999 NWT Labour Force Survey*; NWT Bureau of Statistics

Aboriginal and non-Aboriginal people with less than grade nine, or some high school but no diploma, are more than twice as likely to smoke than people with a university degree (see Figure 10). For example, 61% of Aboriginal and 60% of non-Aboriginal adults with less than a grade nine education smoke, compared with 23% of Aboriginal and 14% of non-Aboriginal adults with a university degree (age-standardized rates).[25] However, the difference between Aboriginal and non-Aboriginal smoking rates remains high for people with a high school diploma and for those with another type of diploma or certificate.

Figure 10

Current Adult Smokers by Education and Ethnicity (Age Standardized), NWT 1999.



Source: *1999 NWT Labour Force Survey*; NWT Bureau of Statistics

High educational attainment (e.g. university degree), regardless of ethnicity, is associated with a lower probability of smoking. Aboriginal people with a high school diploma are less likely to smoke than are those with less education. The differences in smoking prevalence between Aboriginal and non-Aboriginal people in the NWT are due in part to differences in educational attainment and socio-economic status.

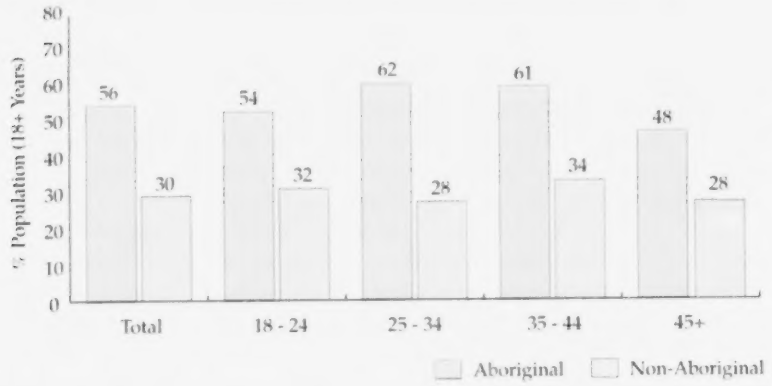
Ethnicity

Smoking prevalence is higher among NWT Aboriginals than among non-Aboriginals[26] (see Figure 11). An estimated 56% of Aboriginals 17 years of age and over are current smokers, as compared with 30% for non-Aboriginals. This difference remains even when age is taken into account. Smoking prevalence is higher among Aboriginal people for every age group, although it is most dramatic for those between 25 and 34 years of age. In this age group, the Aboriginal smoking rate (62%) is more than double that of non-Aboriginals (28%). Moreover, nearly half (48%) of Aboriginal adults 45 years of age and older smoke as compared to 28% of non-Aboriginal adults.

[25] Age-standardized rates may not equal the true proportions in the population for each education category.
[26] Reading, Jeffrey L., *Eating Smoke: A Review of Non-Traditional Use of Tobacco Among Aboriginal People*, Minister of Public Works and Government Services Canada, Health Canada, 1996.

Figure 11

Current Adult Smokers by Age and Ethnicity, NWT 1999.



Source: *1999 NWT Labour Force Survey*; NWT Bureau of Statistics

While smoking prevalence among NWT Aboriginal people is high when compared to non-Aboriginals, the rates are somewhat lower compared to those found among Aboriginal people throughout Canada. According to the results of the *1997 First Nations and Inuit Regional Health Survey*, an estimated 62% of First Nations and Inuit People in Canada 20 years of age and older smoke.[27] In the NWT, 59% of First Nations, Inuvialuit and Inuit 20 years of age and older smoke.

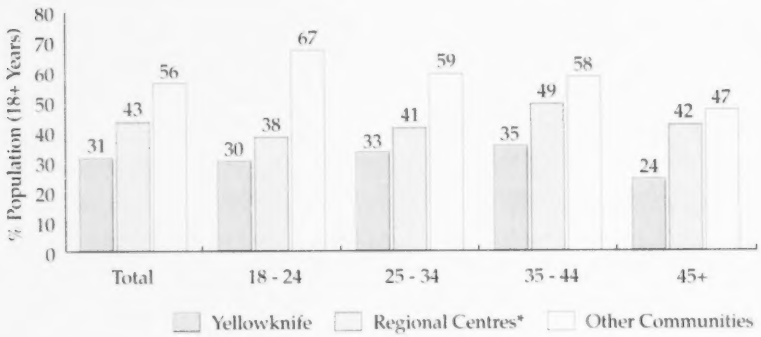
It is important to note that smoking prevalence varies between different Aboriginal groups within the NWT. The highest rates are found among the Inuvialuit and Inuit where an estimated 65% of adults currently smoke. Smoking prevalence among the Dene is also very high for those 18 years of age and older (56%). Forty-nine per cent of Métis adults are smokers.

Location of Residence

There are considerable regional and community variations in the proportion of adult smokers in NWT communities. Paulatuk has the highest smoking rate (73%) followed by Aklavik, Tuktoyaktuk and Lutsel'ke (68%), Fort Good Hope (66%), Tsiigehtchic and Fort Resolution (65%). The lowest smoking rates are found in Kakisa (19%), Yellowknife (31%) and Hay River (33%). Smoking prevalence tends to be higher in communities in the most remote and northern parts of the NWT. All but one of the 13 communities north of Wrigley (63° North latitude) have smoking rates over 50% of the adult population.

[27] Reading, Jeffrey L., *The Tobacco Report*, First Nations and Inuit Regional Health Survey, National Report, 1999.

Figure 12
Current Adult Smokers by Age and Community Type, NWT 1999.



Source: *1999 NWT Labour Force Survey;* NWT Bureau of Statistics
* Regional Centres include Fort Smith, Hay River and Inuvik

In general, smoking rates are higher in smaller communities than in the regional centers of Hay River, Fort Smith and Inuvik, while smoking rates in these regional centers are higher than in Yellowknife (see Figure 12). An estimated 30% of people between 18 and 24 years of age in Yellowknife smoke, as compared to 38% in the regional centres, and 67% in the smaller communities. This pattern holds regardless of ethnicity or educational level. Both Aboriginals and non-Aboriginals are less likely to smoke if they live in Yellowknife than if they live in the regional centers or smaller communities. This finding underscores the point that cigarette smoking is also strongly influenced by social factors at the community level.

Self-Rated Health Status

Self-rated health status is a good indicator of a person's actual health status. In the *1996 Alcohol and Drug Survey*, 60% of individuals 18 years of age and older rated their health as *excellent* or *very good*, and another 31% rated their health as *good*. An estimated 9% said they had *fair* or *poor* health. There is an association between smoking and self-reported health status: individuals who had never smoked were more likely to report *excellent* or *very good health* (72%), compared to those who were currently smoking (53%). More than double the rate (9%) of current smokers graded their health as *fair* or *poor* compared to individuals who had never smoked (4%).

Contact with Health Professionals

Current and former smokers were more likely to seek the assistance of a physician or nurse than were those who had never smoked. An estimated 32% of individuals 18 years of age and older who had never smoked indicated they had not seen a physician or nurse during the previous year, compared to 17% of former smokers and 25% of current smokers. An estimated 5% between 18 and 34 years of age who had never smoked indicated they saw a physician or nurse five or more times in the previous year, compared to 25% of current smokers.

Smoking – A Public Health Concern

Studies from a wide range of perspectives on tobacco use have generated consistent findings regarding the determinants of smoking (e.g. education, income, employment, social support networks, ethnicity, gender, age, the role of peer groups, etc.). Although there is still much to be learned about predisposing factors, there is a clear consensus that multi-pronged approaches are required in order to reduce smoking. This necessitates a broad coalition of partners working toward a common goal of smoking reduction and/or cessation in the NWT.

Despite some progress, the NWT still falls short of achieving adequate tobacco control and reduction – most notably among its youth. Although complete elimination of tobacco use is desirable, this may not be an achievable goal at the present time. However, prevention, control and reduction of smoking are objectives that are not only achievable, but also necessary. Success will depend on comprehensive prevention and cessation programs, as well as on targeted tobacco control initiatives at both policy and legislative levels.

Many of the adverse health effects of habitual smoking become evident after the second or third decade following smoking initiation, although many more immediate impacts are manifested directly on infants and children exposed to tobacco smoke before birth and in their homes. *Smoke Alarm* offers the warning that unless successful interventions are taken, the NWT can expect to see significant increases in human suffering and equally dramatic increases in direct health care costs over the next 10 to 20 years.

Why People Smoke

People begin smoking for various reasons: to relieve conditions of loneliness, stress and poverty; as a way to deal with anger or frustration; to help achieve unrealistic weight expectations; to provide a break from the daily demands of child caring or work; to project the 'sophisticated' image often depicted in tobacco advertising; as a result of peer influence on the part of family, friends and co-workers who smoke; or more likely, a combination of the above.

Whatever the reason behind the initial decision to smoke, the reality is that smoking quickly becomes addictive. In fact, nicotine ranks equally with alcohol, cocaine and heroin with regard to the severity of addiction arising from continued use.

Historically, tobacco advertising has wanted female consumers to equate smoking with liberation.

Recall these popular slogans:

- *You've come a long way, Baby – Virginia Slims.*
- *Reach for a Lucky instead of a Sweet – Lucky Strikes.*
- *After a Man's Heart – Chesterfields.*

What tobacco advertisers do not portray is the feeling of powerlessness that comes with addiction, nor the human suffering associated with tobacco-related illness.

It is important to recognize that smoking is a distinct health challenge. Cigarettes are a legal product, demanded by consumers and form part of a social custom.[28] However, the choice to smoke differs from the choice to buy other consumer goods in at least two ways. First, smokers are often not fully aware of all the risks of disease and premature death that their choice to smoke entails. Second, smoking is usually initiated in adolescence, when young people may be even less aware than adults of the health risks that smoking poses, and consequently underestimate the risks of becoming addicted to nicotine.

Influence of Tobacco Advertising

Tobacco companies have studied smokers for years and strategically use the information gathered to keep old customers and to attract new 'recruits' through creative, population-targeted advertising campaigns. The cigarette industry has long employed state-of-the-art market research in support of its advertising decisions. The goal of tobacco consumer research has been to identify the needs, interests and concerns of target audiences so that advertisers can 'position' the product in terms that the target group will find most appealing.

Overall, one of the functions of advertising is to promote greater social acceptability of smoking. To recruit 'starters', tobacco companies employ brand images that communicate independence, freedom and often images of peer acceptance, thus portraying smokers as healthy, attractive, autonomous and athletic. For those smokers who appear to be concerned about the health risks associated with smoking, 'lighter' brands do the trick by conveying a sense of well-being, harmony with nature and a consumer's self-image as intelligent.[29] In the final analysis, tobacco advertising distorts real health risks associated with smoking and the highly addictive nature of nicotine.

Tobacco in the NWT

Every culture in the world holds its own social and cultural meanings of tobacco use and smoking. The Northwest Territories is not unique in this respect. What is unique, perhaps, is the particular history of tobacco introduction to Aboriginal peoples.[30]

In what is commonly referred to as the pre-contact era, tobacco was regarded as sacred and often served as the basis of religious ceremonies. The post-contact era was marked by the arrival of European traders as well as the introduction of new types of tobacco. The 'true' tobacco (*Nicotiana rustica*), which Aboriginal people grew themselves, was a cherished, seldomly traded commodity, used for the purpose of ceremonial rituals.

[28] The World Bank, *Curbing the Epidemic: Governments and the Economics of Tobacco Control*, Washington, D.C., 1999.
[29] Pollay, Richard W., "Targeting youth and concerned smokers: evidence from Canadian tobacco industry documents", *Tobacco Control*, Volume 9, June 2000: 136-147.
[30] For a personal account see Bertha Blondin, "Traditional Use of Tobacco Among the Dene", *Arctic Medical Research*, Volume 49, Supplement 2, 1990: 51-53.

It is important to note, however, that accounts of tobacco use among First Nations people in Canada cannot be easily generalized to Aboriginal peoples in the NWT. Tobacco was never cultivated by Northern Aboriginals. Moreover, there is considerable ambiguity as to whether ceremonial tobacco use was an indigenous practice, or whether it became such only after contact with non-Aboriginal traders.

Tobacco imported and traded by Europeans (*Nicotiana tobacum*), was regarded as non-sacred and used primarily for recreational purposes.[31] During the 18th Century, when competition between traders such as Hudson's Bay Company and the Northwest Company was most intense, tobacco and alcohol were used as incentives to induce Natives to trade. As a result of economic activity, tobacco became part of the ceremonial tradition.

This historical snapshot may help to place in context the role and meaning of tobacco by Aboriginal peoples, as well as the economic influences which have had a direct influence on those meanings, shifting tobacco use from its ceremonial realm toward a recreational pattern of consumption. In short, a shift from the sacred to the profane.

For approximately 200 years, only moderate amounts of tobacco were consumed by Aboriginal people. Although tobacco occupied a legitimate cultural and spiritual place, it remains "unclear how this relationship contributes to the addictive patterns of tobacco use by contemporary First Nations people."[32]

The lack of traditional knowledge of tobacco in the Dogrib and Slavey groups is supported by the evidence that ***Nicotiana*** *was not cultivated or traded in these tribal territories prior to European contact. Mackenzie reported in 1789: "There were five families consisting of twenty-five or thirty people of two different tribes, the Slave and the Dog-Rib Indians. We made them smoke, though it was evident they did not know the use of tobacco."* [33]

Tobacco was regarded as a means of communicating with the spirits. It was offered to appease angry waters, to still tempests, to protect the traveller, to show gratitude to a departed hero or a benevolent spirit. By burning tobacco, a person or tribe sent a prayer to the spirits. Smoking the ceremonial pipe was the last act of making an agreement or treaty. Tobacco seeds were planted with ceremony and singing.[34]

"It is believed that tobacco is a gift from the creator – a sacred medicine meant for special occasions. Smokers who use tobacco every day are abusing its special purpose, by taking something sacred and making it commonplace. It should comes as no surprise, then, that tobacco will eventually turn the tables and abuse the smoker."

– Ross D. Wheeler, MD

[31] Reading, Jeffrey L., *Eating Smoke: A Review of Non-Traditional Use of Tobacco Among Aboriginal People*, Minister of Public Works and Government Services Canada, Health Canada, 1996.
[32] *Ibid*: 11.
[33] Government of the Northwest Territories, "Ethnobotany of Tobacco Extenders used by Dene in the Northwest Territories", June 2000.
[34] *Ibid*

In 1992, the U.S. Environmental Protection Agency classified tobacco smoke as a "Group A" carcinogen, reserved for those substances known to cause cancer in humans. Canadian research estimates that 330 deaths in non-smokers each year are attributable to lung cancer alone from exposure to tobacco smoke.

- *Smokers have a two to fourfold greater incidence of coronary heart disease and about a 70% greater death rate than do non-smokers.*
- *Smoking causes about one-quarter of all strokes and smokers are 2.5 times as likely to suffer a stroke. The risk increases with the number of cigarettes smoked per day.*
- *Approximately 90% of all oral cancers in men and 60% of oral cancers in women are attributable to smoking.*
- *Smoking is responsible for 90% of all cases of emphysema.*
- *Cigarette smoking accounts for about 80% of all deaths due to chronic obstructive pulmonary disease.*

The Health Burden of Smoking

It has been estimated that 25% of all deaths (385 out of 1,493) in the NWT and Nunavut between 1991 and 1996 were attributable to smoking.[35]

Cardiovascular Diseases

Smoking is an important cause of heart disease, stroke and disease of the blood vessels. Each year in Canada, more than 16,000 cardiovascular deaths result from smoking. Many of these deaths are premature (before the age of 70). In the NWT and Nunavut (1991 to 1996), cardiovascular disease accounted for 34% of the estimated number of smoking-attributable deaths.

Ischemic (coronary) heart disease accounts for more than half of these deaths. Smoking is a major risk factor for heart attacks and sudden cardiac death, and a major cause of stroke. Each year in Canada, more than 2,000 deaths from stroke result from smoking. Smoking is the most powerful risk factor for plaque formation (atherosclerosis) involving the arteries of the legs (peripheral vascular disease). This condition leads to leg pain, difficulty in walking, gangrene and, ultimately, loss of limbs.

Cancers

Smoking is responsible for more than 16,000 deaths from cancer each year in Canada – almost 30% of all cancer deaths. In the NWT and Nunavut (1991 to 1996), cancers accounted for 37% of the estimated number of smoking-attributable deaths.

Smoking causes cancer of the lung, oral cavity, pharynx, larynx, esophagus, stomach, pancreas, kidney, urinary bladder and cervix. More recent evidence links smoking with cancer of the large intestine, breast cancer and some forms of leukemia.

Since 1993, lung cancer exceeds breast cancer as the leading cause of cancer deaths in Canadian women. Research suggests that, for the same amount of smoking, women may be more susceptible than men to the development of lung cancer. Lung cancer is a highly lethal disease; only a small minority of patients are alive five years after diagnosis.

Respiratory Diseases

Each year, smoking is responsible for more than 8,000 deaths in Canadians from respiratory diseases. In the NWT and Nunavut (1991 to 1996), respiratory diseases accounted for 30% of the estimated number of smoking-attributable deaths.

The importance of smoking as a cause of death and disability from chronic obstructive lung disease (chronic airway obstruction, chronic bronchitis and emphysema) is well-established. Smoking outweighs all other factors in causing these conditions, including air and occupational contaminants.

[35] Mo, Daoqun, "Estimated Smoking – Attributable Mortality in Former NWT 1991-1996", *EpiNorth*, Volume II, Summer 1999.

Smoking adversely affects the body's immune system and other defense mechanisms. The frequency and severity of respiratory infections, such as pneumonia and influenza, are increased in smokers.

Gastrointestinal Effects

Peptic ulcer disease is more likely to occur in smokers. When ulcers are present, they heal less readily in smokers and are more likely to recur.

Evidence is accumulating that smoking is a risk factor for the occurrence of chronic bowel disease (Crohn's disease).

Effects on Teeth and Gums

Tobacco use is an important factor in oral health, apart from its role in causing oral cancer. In a recent study of Canadians 50 years of age and over, smokers were more likely to have lost all their natural teeth, to have remaining teeth with decayed and filled root surfaces, and to have significant periodontal disease.

Other Effects

Recent reports provide strong evidence of an association between smoking and osteoporosis (decreased bone density), which, in turn, predisposes a person to bone fractures.

Evidence of a link between cataracts and smoking continues to grow. An association may also exist between smoking and a type of thyroid disease (Grave's disease).

Smoking may be a detriment to physical fitness, even among relatively fit, young individuals. One recent study suggests that smokers have lower physical endurance. Smoking reduces the ability of the blood to carry oxygen and increases the heart rate and basal metabolic rate, thus counteracting the benefits of physical activity, including cardiovascular fitness.

Smoking decreases blood flow in small vessels. In the skin, this leads to accelerated wrinkling and an appearance of premature aging in both men and women. Bone fractures and other injuries heal more slowly in smokers.

Hazards for Women

Some adverse outcomes of smoking are unique to women. Evidence for the causal role of smoking in cancer of the cervix is now quite strong. Tobacco smoke by-products have been found in the cervical secretions of smokers.

Adverse Effects of Maternal Smoking

Smoking during pregnancy can have serious, adverse effects on the health of the fetus. In fact, smoking has been identified as the single most important determinant of poor fetal health in North America. Yet, despite this knowledge, a significant number of Canadian women continue to smoke while pregnant.[36]

[36] Connor, Sarah K. and Lynn McIntyre, "The Sociodemographic Predictors of Smoking Cessation Among Pregnant Women in Canada", *Canadian Journal of Public Health*, Volume 90, 1999: 352-355.

Epidemiological studies have shown that exposure to ETS is a significant risk factor for lung cancer in adults. The risk of lung cancer has been estimated to increase by 25% to 30% for non-smokers who live with smokers.

Children and ETS

- *Children up to 18 months of age who are exposed to ETS in the home have a 1.6 to four times greater risk of experiencing lower respiratory-tract infections including bronchitis, croup and pneumonia.*
- *Infants up to three months of age are at greatest risk.*
- *Children exposed to ETS have more acute upper respiratory tract infections such as sore throats, colds, stuffy noses and experience more difficulty getting over colds than do non-exposed children.*
- *Exposure to ETS places children at a greater risk for acute and chronic middle ear infections (otitis media), and exposed children are 1.6 to 2.1 times more likely to experience middle ear effusion (commonly known as fluid in the middle ear) than non-exposed children.*
- *Asthma is the most common chronic disease of childhood. Environmental factors play an important part in determining its onset and severity. Children exposed to ETS have a 1.2 to 1.4 times higher risk of developing asthma compared to non-exposed children.*

Maternal smokers, and non-smoking pregnant women regularly exposed to tobacco smoke, have an increased risk of having a low birth weight baby as a result of poor prenatal growth or premature birth. Maternal smokers are up to three times more likely to have a spontaneous abortion (miscarriage) and are at increased risk of delivering stillborn babies due to smoking-induced placental complications and intrauterine growth retardation. There is also a greater risk for premature rupture of the amniotic sac, often resulting in premature labour or infections for the fetus. These risks increase with the amount smoked.

Smoking during and after pregnancy is associated with a significant risk of sudden infant death syndrome (SIDS), the unexplained and unexpected death of apparently healthy infants, usually during sleep. Studies show that infants of mothers who smoke are five times more likely to die from SIDS than infants of mothers who do not smoke.

Environmental Tobacco Smoke

Environmental tobacco smoke (ETS) consists of exhaled smoke and the smoke emitted from the burning end of a cigarette.[37] A sizeable body of research demonstrates that ETS poses a substantial risk to human health. This is particularly true in populations where a significant number of people are exposed to ETS on a regular basis. Cold weather conditions during long northern winters may mean that NWT residents spend a good portion of their time indoors. Consequently, indoor air quality can have a significant impact on health. Without proper ventilation, indoor air can become quickly contaminated. The most harmful and widespread contaminant of indoor air is tobacco smoke. The toxins found in cigarette smoke permeate the surrounding air and also enter the bodies of non-smokers who breathe in the ETS, posing serious health risks.

Adults exposed to ETS have a greater risk of developing coronary heart disease and the risk increases with prolonged exposure. Studies have shown that environmental exposure to tobacco smoke causes an increase in risk of ischemic heart disease of about 25%. Even short-term exposure has been linked to an increased risk of heart disease and stroke.[38] Studies have shown that exposure to ETS increases the risk of lung cancer by 25% to 30% for non-smokers who live with smokers.[39]

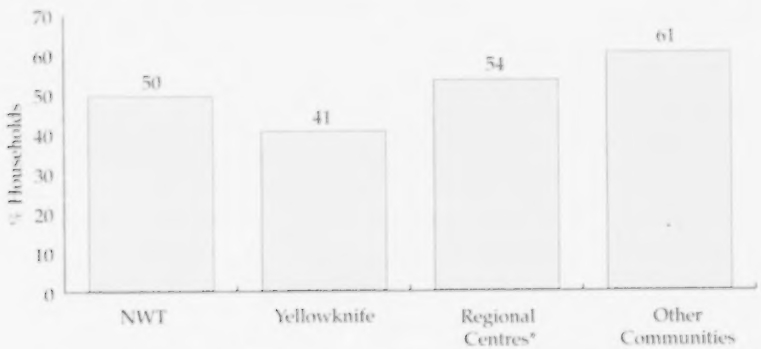
In the case of infants and young children, exposure to ETS is considered a critical risk factor in their home environment. Since small infants and young children are growing physically and mentally, the harmful effects of ETS will have a greater impact and can have long-term implications for their health in adulthood. Younger lung tissue is more susceptible to damage at lower concentrations of ETS; children have smaller airways and breathe more rapidly, inhaling more air and more pollutants relative

[37] Health Canada, *Environmental Tobacco Smoke: Knowledge, Attitudes and Actions of Parents, Children and Child Care Providers*, Minister of Supply and Services Canada, 1995.
[38] Law, M.R. *et al.*, "Environmental tobacco smoke exposure and ischemic heart disease: an evaluation of the evidence", *BMJ*, Volume 315, 1997, 973-979.
[39] Hackshaw, A.K. *et al.*, "The accumulated evidence on lung cancer and environmental tobacco smoke", *BMJ*, Volume 315, 1997, 980-988.

to their total body weight. Moreover, their immune system is less mature. Research shows that ETS-related illness among children encompasses a wide range of health problems, from acute and chronic conditions, including bronchitis, croup, pneumonia, and a greater risk of acute and chronic middle ear infections (*otitis media*).

In an estimated 50% of households in the NWT, one or more occupants smoke on a daily or weekly basis (see Figure 13). Regular smoking occurs in an estimated 41% of the households in Yellowknife, 54% in the regional centres of Fort Smith, Hay River and Inuvik, and 61% for all other smaller communities combined. The percentage of smoking households in smaller communities ranged from a high of 82% in Colville Lake and Jean Marie River, 78% in Aklavik and Wekweti, about 40% in Kakisa and Trout Lake to a low of 36% in Holman.

Figure 13
Regular Smoking Households, NWT 1999.



Source: *1999 NWT Labour Force Survey*, NWT Bureau of Statistics
* Regional Centres include Fort Smith, Hay River and Inuvik

Territory-wide, an estimated 48% of all children under the age of 15 live in a home where smoking occurs regularly (see Figure 14). The extent of exposure to ETS at home for children increases to about 56% in smaller communities, with the highest rate in the communities of Paulatuk (84%), Fort Resolution (82%) and Aklavik (80%). The extent of ETS exposure among children varied widely between communities, with the lowest levels found in Dettah and Holman (30%) and Trout Lake (11%).

Holman: Case Study for Successful ETS Reduction

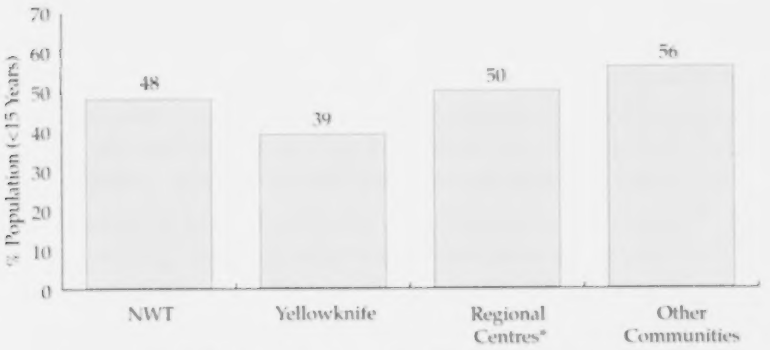
The effectiveness of a public education campaign to curb household exposure to ETS can be seen in the community of Holman where, for a number of years, health care workers have encouraged smokers to smoke outside of their homes. Evidence from the 1999 Northwest Territories Labour Force Survey indicates that this strategy for ETS reduction is working.

Smoking prevalence among adults in Holman is among the highest of any community in the Northwest Territories (62%) yet smoking takes place in 36% of the households. By contrast, in all other communities, the percentage of households in which smoking takes place on a regular basis is either higher than or about the same as the smoking rate among adults in the community.

"I can't stand it anymore. There's no place to go where I feel comfortable smoking. I don't go to restaurants, don't visit friends, and last week I was the only smoker at a party. I don't want to be like this."

– Anonymous member of a Smoking Cessation Group

Figure 14
Population less than 15 Years of Age in Regular Smoking Households, NWT 1999.



Source: *1999 NWT Labour Force Survey*; NWT Bureau of Statistics
* Regional Centres include Fort Smith, Hay River and Inuvik

The Societal Burden of Smoking

Individual

At the personal level, the social costs of smoking are experienced in terms of how smoking behaviour influences the selection of friends, how it influences group affiliations, and how smoking affects interpersonal relationships with family, peers and co-workers. As much as smoking itself is influenced by social factors, smoking influences the social relationships into which smokers enter or from which they are excluded.

An addiction to smoking can also influence personal lifestyle choices, such as leisure activities and recreational interests. The natural goals to which such activities are normally directed can, for the addicted person, easily become subservient to a more primary goal – ensuring a sufficiently constant source of nicotine. Many smokers are less inclined to attend social events if smoking is banned from the venues.

Over the past decade, the social acceptability of smoking has, in many parts of society, decreased dramatically. Today, many smokers find that their habit, once acceptable, is now openly rejected. The social rejection of smoking behaviour may be interpreted by the smoker as personal rejection, which may be accompanied by a loss of self-esteem and self-respect.

Attitudes toward smoking in the workplace have changed in the past decade. Many employers now require a smoke-free workplace. This may impact on the vocational preferences and occupational choices of smokers, with lifelong consequences.

Family

Beyond the health effects of ETS that come from living with a smoker in the household, there are subtle, and sometimes not so subtle, social impacts attached to living with a smoker. Interpersonal conflicts may arise from the personal habits of smokers and the consequences of smoking (e.g. smoking in bed, dirty ashtrays, residual smoke odours). Marital conflicts may arise if one spouse wants the other to quit smoking.

Family members may be distressed by the thought that a person they love and need is slowly but surely smoking him/herself toward a premature death. Children are susceptible to anxiety over the potential loss of parents, and this may be intensified if one or both parents smoke. Children are subject to mixed messages about smoking: How can their parents continue to smoke when their teachers are saying that smoking kills?

It is within the family setting that the seeds of a socialized acceptability for smoking are first planted.

The number of deaths in Canada attributable to smoking exceeds the combined total of those due to suicide, AIDs, vehicle collisions and murder.[40]

Community

The community can also provide many opportunities for the seeds of socialized smoking to take root and spread. Co-workers who smoke tend to congregate at coffee time. Restaurants and other establishments are pressured by patrons to allow smoking. Community council members who smoke hotly debate with their non-smoking colleagues around the merits of banning smoking in public places. Bars and bingo halls are clouded in tobacco smoke. People smoke in doorways, on the street, in their cars, trucks and boats. All the while, young children are watching and learning from their parents and elders, and too often the lesson learned is that smoking is okay.

This ill-founded lesson comes with a price. The health and wealth of a community is directly related to the well-being of its people. The more people who smoke in a community, the greater the risk to the community at large. The costs of smoking are measured in the pain and anguish felt when community members fall ill, and in the grieving that happens when friends and acquaintances die. The costs of smoking are measured in lost productivity and missed opportunities in community ventures, business or otherwise.

Even more costs of smoking are felt when community leaders fall ill, become disabled and are no longer able to provide guidance and advice. But perhaps the greatest cost of all occurs when elders die prematurely from the effects of smoking, taking with them a lifetime of knowledge and wisdom that might, had they lived, have been passed on.

[40] Makomask, Illing, E.M. and M.J. Kaiserman, Mortality Attributable to Tobacco Use in Canada and Its Regions, 1991, *Canadian Journal of Public Health*, Volume 86, 1995: 257-265.

Financial Costs of Smoking

Health Canada estimated that the financial costs attributable to smoking for 1993 were approximately $11 billion, of which $3 billion was spent on direct health care costs such as hospitalization and physician time.[41] The remaining $8 billion was due to lost productivity, including foregone household income. Labour Canada has estimated that a smoking employee costs $2,308 to $2,613 more per year to employ than a non-smoker, as a result of absenteeism, increased health and life insurance premiums and lost productivity. By comparison, it is estimated that in the fiscal year of 1993/94, federal excise taxes and duties totalled $2.6 billion.

Drawing on the methodology of a national study,[42] the estimated net cost to society of tobacco use in the NWT is approximately $10 million annually. Societal costs for health care, residential care, fire damage, absenteeism from work and lost productivity due to premature death associated with smoking are estimated to be $31 million annually. These costs are offset by approximately $21 million in tobacco tax revenue annually.[43]

[41] See Health Canada.
[42] Kaiserman, Murray J., "The Cost of Smoking in Canada, 1991", *Chronic Diseases in Canada*, Volume 18, No. 1, 1997: 13-19.
[43] Research and Analysis Unit, Department of Health and Social Services, Government of the Northwest Territories, 1999.

Giving Up Smoking

FORMER SMOKERS' PROFILE

While smokers in the NWT are less likely to quit than smokers in the general Canadian population, an increasing number are working at breaking the addiction. Approximately 5,000 individuals 18 years of age and older indicated they are seriously considering quitting within the next six months.[44] This represents 43% of current adult smokers.

Thinking about Quitting

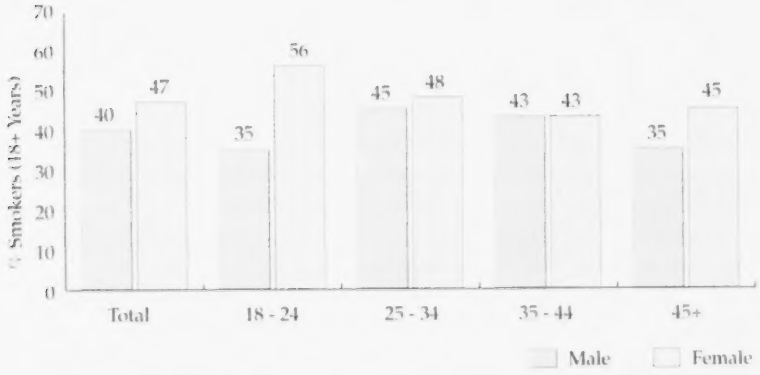
An awareness of the specific interest levels to quit smoking is an important consideration for public health practitioners interested in developing smoking intervention programs. The following information reveals who may be most responsive to a smoking cessation program, and who may be most resistant. An awareness of who is thinking about quitting may provide useful clues as to how to effectively target both motivated or hard-to-reach individuals.

Age and Sex

Women (47%) are more likely to contemplate quitting than men (40%) (see Figure 15). In particular, young women aged 18 to 24 (56%) are most likely to be thinking about quitting. Men in the 18 to 24 and 44+ age groups (35%) are the least likely to consider quitting.

Figure 15

Smokers Considering Quitting within Six Months by Age and Sex, NWT 1999.



Source: *1999 NWT Labour Force Survey*; NWT Bureau of Statistics

[44] Stephens, Megan and J. Siroonian, "Smoking prevalence, quit attempts and successes", *Health Reports*, Volume 9, 1998: 31-37.
[45] *1999 NWT Labour Force Survey*.

"Yes, but..."

"I'm too old to quit." ***FACT****: Recent studies show substantially reduced mortality rates for ex-smokers of all ages.*

"It's too late to quit; the damage is already done." ***FACT****: People with serious smoking-related illnesses survive longer and recover faster after quitting than those who continue to smoke.*

"...I'll gain weight!" ***FACT****: The average weight gain for quitters is 2.3 kilograms (5 pounds).*

Benefits of Quitting

- *People who quit generally achieve the same health levels as non-smokers after several years, especially if they stop while they are young. However, even older, lifetime smokers can benefit significantly from quitting. Within a year of quitting, a person's risk of developing heart disease drops to half that of a smoker.*
- *The increased risk of stroke disappears within two to four years after a person stops smoking. The risk of developing lung cancer decreases by one-half after five to 15 years from the time a person quits, and the risk of dying from cancer is similar to that of someone who has never smoked.*[45]
- *Parents who quit reduce the exposure of their children to ETS and decrease the likelihood that their children will start smoking.*

Similar to smoking initiation, quitting is a process that occurs over time. There are at least four phases:

- ***Precontemplation*** *– no thought or need to change.*
- ***Contemplation*** *– seriously thinking about change.*
- ***Action*** *to modify behaviour.*
- ***Maintenance*** *of changed behaviour.*

- *The majority of smokers who quit for at least a day relapse within the first week.*

- *More than 50% of smokers who maintain their quit attempt for at least three months are successful in staying quit. More than 95% of smokers who remain abstinent for at least one year are successful in staying quit.*

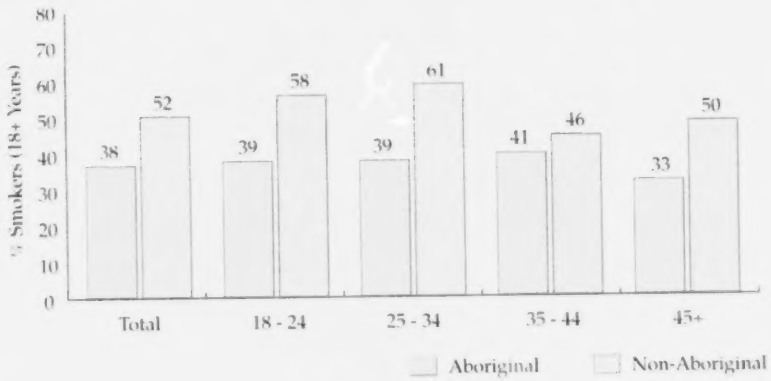
Ethnicity

According to the *1999 Labour Force Survey*, Aboriginal smokers were less likely to be considering quitting within the next six months than were non-Aboriginal smokers (38% and 52% respectively) (see Figure 16). The difference was greatest among adults less than 35 years of age, and smallest among those between 35 and 44 years of age. In the latter age group, 46% of non-Aboriginal smokers indicated they were thinking about quitting, compared to 41% of Aboriginal smokers.

Among Aboriginal groups, Inuit and Inuvialuit smokers were the least likely to be considering smoking cessation (30%), followed by Dene smokers (39%) and Métis smokers (43%). It appears that smoking is most entrenched among Inuit and Inuvialuit as they hold the highest smoking rates and are also the least likely to be thinking about quitting. The high smoking rate and the low percentage of those thinking about quitting among Dene, particularly for those 45 years of age and older, is also a concern. (Only 30% of Dene smokers in this age group are thinking about quitting compared to 43% of Dene less than 45 years of age.)

Figure 16

Smokers Considering Quitting within Six Months by Age and Ethnicity, NWT 1999.



Source: *1999 NWT Labour Force Survey*; NWT Bureau of Statistics

Education

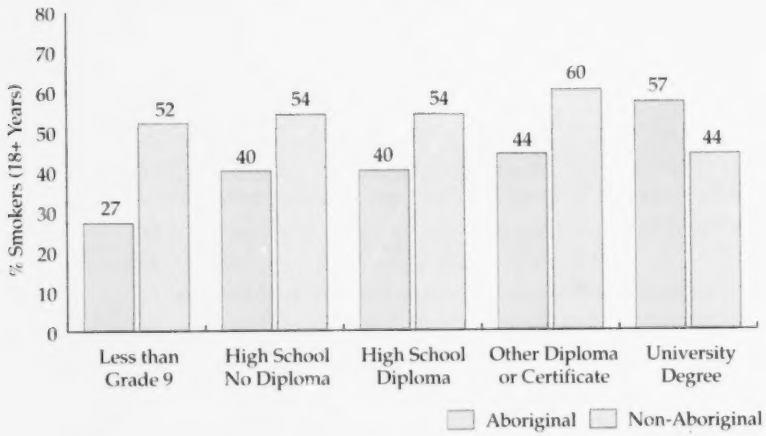
The percentage of smokers who are considering quitting within the next six months is influenced by the level of schooling achieved. People with lower levels of education were less likely to be thinking about quitting in the near future. An estimated 27% of people with less than grade nine were 'contemplators', compared to 48% of people with a high school diploma and 49% with a university degree (age adjusted rates).

Educational attainment has a greater impact on Aboriginal smokers than it does for non-Aboriginal smokers. In the latter group, an estimated 52% of those with less than grade nine indicated they were seriously thinking about smoking cessation, compared to 44% of those with a university

degree. Meanwhile, among Aboriginal smokers, 27% of those with less than grade nine were contemplating quitting, compared to 57% of those with a university degree. While differences in educational attainment between the two groups do not account for all of the differences in the extent to which they are considering quitting smoking, it appears to be an important contributing factor.

Figure 17

Smokers Considering Quitting within Six Months by Education and Ethnicity (Age Adjusted), NWT 1999.



Source: *1999 NWT Labour Force Survey*; NWT Bureau of Statistics

Location of Residence

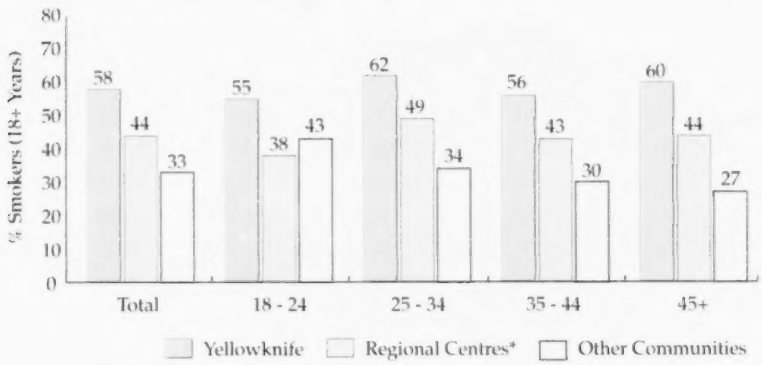
Location of residence was associated with the expressed intention to quit smoking. Smokers living in Yellowknife (58%) were more likely to be thinking about quitting than smokers living in the regional centers of Fort Smith, Hay River and Inuvik (44%) (see Figure 18). However, smokers living in the smaller communities were less likely to be thinking about quitting (33%). This pattern holds across all age groups. The difference between the smaller communities and the larger centers is particularly evident among adults who are 25 years of age and older. For example, 56% of residents of Yellowknife between 35 and 44 years of age indicated they are thinking about quitting, compared to 43% of residents in the same age group living in the regional centers, and 30% of their counterparts living in the smaller communities.

Aboriginal smokers 25 years and older living in Yellowknife are more likely to indicate they are seriously considering quitting smoking than are Aboriginal smokers living in the regional centers and in the smaller communities (70%, 42% and 29% respectively). The same pattern can be seen among non-Aboriginal smokers in this age group; an estimated 56% in Yellowknife, 50% living in the regional centers and 38% living in the smaller communities indicated they are thinking about quitting. This pattern of smoking behaviour suggests that a smoker's position on the

quitting continuum is influenced by the prevalence of smoking in their immediate social environment; where smoking is widespread with few or no restrictions, smokers are less likely to consider quitting.

Figure 18

Smokers Considering Quitting within Six Months by Age and Community Type, NWT 1999.



Source: *1999 NWT Labour Force Survey*; NWT Bureau of Statistics

*Regional Centres include Fort Smith, Hay River and Inuvik

Bans on Smoking

The degree to which smokers encounter restrictions varies with the community in which they live. In larger centres there may be more smoking restrictions in public workplaces than in smaller communities.

Workplace smoking bans can lead to a decrease in smoking prevalence and the number of cigarettes smoked daily by workers.[46] Smokers who work in a smoke-free environment are more likely to report a quit attempt in the previous year than those who work indoors where there is no smoking ban.[47] An estimated 66% NWT-employed smokers work in occupations where there are smoking restrictions. In Yellowknife, this percentage increases to 74%, dipping slightly to 70% in the regional centers and 56% in the smaller communities.[48]

Approximately 44% of employed smokers indicated they are seriously considering quitting smoking within the next six months. The proportion of individuals contemplating cessation increases to 48% among smokers who work in jobs where there are smoking restrictions, and falls to 36% among those who work where there are no restrictions.[49] The relationship between workplace smoking restrictions and intentions to quit is stronger in Yellowknife (60%) than in the regional centres (42%) or the smaller communities (39%).

[46] Farrelly, Matthew C. *et al.*, "The impact of workplace smoking bans: results from a national survey", *Tobacco Control*, Volume 8, 1999: 272-277.

[47] Farkas Arthur J. *et al.*, "The effects of household and workplace smoking restrictions on quitting behaviours", *Tobacco Control*, Volume 8, 1999: 261-265.

[48] *1999 Labour Force Survey*

[49] There is a relationship between education and smoking restrictions at the workplace. Individuals with higher educational levels are more likely to be in occupational settings where smoking is prohibited. Conversely, individuals with lower educational levels are more likely to be in occupational settings where smoking is permitted (e.g. construction, transportation, service industries, etc.)

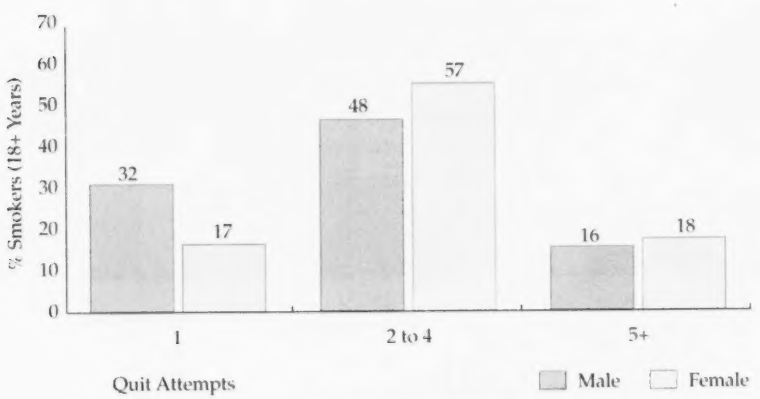
A smoker's expressed intention to quit is an important signal that the quitting process has already begun. However, it has little bearing on success unless action is taken to either reduce cigarette consumption or attempt to quit completely. At least one previous quit attempt is a better predictor of successful cessation than simply expressing an intention to quit.[50]

The majority (76%) of current smokers indicated at least one attempt at quitting. Smokers over 45 years of age were slightly more likely (80%) to indicate that they had tried to quit smoking at least once.[51] There are no reported differences between men and women or between Aboriginal and non-Aboriginal peoples in the per cent that indicated they tried to quit.

The reality is that most smokers are unable to successfully quit on their first attempt. Many adult smokers attempt quitting repeatedly over a period of years. Current smokers who tried to quit without success made an average of four attempts. Just over half (54%) indicated two to four attempts, and 18% tried five or more times. Women (79%) were more likely than men (65%) to make more than one quit attempt.

Figure 19

Number of Quit Attempts by Current Smokers by Age and Sex, NWT 1996.[52]



Source: *1996 NWT Alcohol and Drug Survey*; NWT Bureau of Statistics

Nonetheless, the long-term problem for smokers is not simply quitting, rather it is the extended maintenance of smoke-free behaviour. The evidence suggests that a large number of smokers in the NWT are in fact motivated to quit at some point in their smoking lives, and many do so. It is important that appropriate resources be made available; first, to encourage cessation; second, and equally importantly, to help individuals stay smoke-free.

[50] Osler, Merete and Eva Prescott, "Psychosocial, behavioural, and health determinants of successful smoking cessation: a longitudinal study of Danish adults", *Tobacco Control*, Volume 7, 1998: 262-267.
[51] *1996 Northwest Territories Alcohol and Drug Survey.*
[52] Five per cent of males and 8% of females did not provide an answer.

Successful Quitters

In 1996, approximately 7,300 adults in the Northwest Territories were former smokers. This represents 26% of the population aged 18 and older. Although a large number of adults in the NWT smoke, a growing number are also able to quit. An estimated 68% of residents 18 years of age and older either currently smoke or have been a smoker at some point in their life.[34] Of these ever smokers, an estimated 37% no longer smoke. The overall rate of successful quitting is similar for men (36%) and women (38%).

Smoking cessation is a major means of reducing smoking-related mortality and illness. It has been estimated that a 10% reduction in smoking prevalence in the Northwest Territories may prevent 17% of smoking-related cancers, and a 20% reduction in the smoking rate may contribute to a 26% reduction in these cancers.[35]

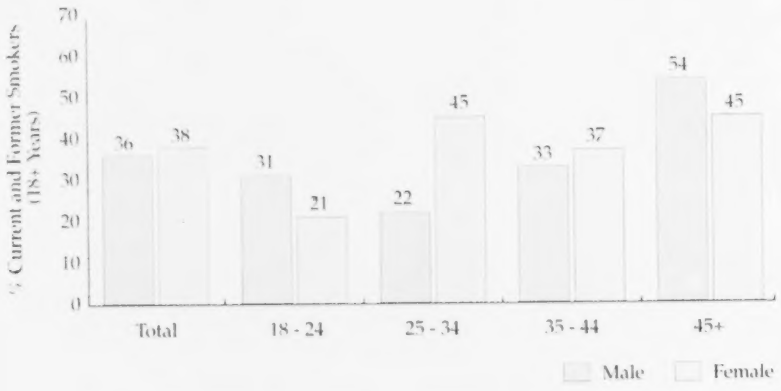
Quitting smoking is the single most effective thing that smokers can do to enhance the quality and length of their lives.

Age and Sex

Overall, the rates of quitting increase with age (see Figure 20). An estimated 26% of young adult smokers between 18 and 24 years of age successfully quit, compared to 33% of those between 25 and 34 years of age. Smokers between 35 and 44 years of age have a quit rate of 35%. For those 45 years of age and older the quit rate is 50%. It is not surprising that older smokers are more likely to have quit than younger smokers since they are more likely to experience health problems, making the serious risks associated with smoking a reality.

Figure 20

Quit Rates by Age and Sex, NWT 1996.



Source: *1996 NWT Alcohol and Drug Survey*; NWT Bureau of Statistics

Young male smokers between 18 and 24 years of age have a higher quit rate (31%) than do young women in this age group (21%). However, women between 25 and 34 years of age have twice the quit rate compared to men of the same age (45% and 22% respectively). Men aged 45 and older show a higher quit rate than women of the same age (54% and 45% respectively).

[34] Leamon, Anthony, "Smoking in the Northwest Territories: Preliminary Results from the 1999 Labour Force Survey", *EpiNorth*, Volume 12, Spring 2000: 6-8.

[35] The group consisting of current and former smokers is technically referred to as *ever smokers*.

Education

Successful smoking cessation is associated with higher educational attainment. Results from the *1996 Alcohol and Drug Survey* show that only 25% of people with less than a high school education who have smoked quit successfully. An estimated 64% of people with a university degree, 42% of those with some other post-secondary education and 37% of those who had completed high school quit smoking successfully. These results suggest that smokers who do not have education beyond high school are the least likely to quit.

In small communities where smoking behaviour is widespread and few smoking restrictions are enforced, smokers may find quitting a particularly difficult challenge.

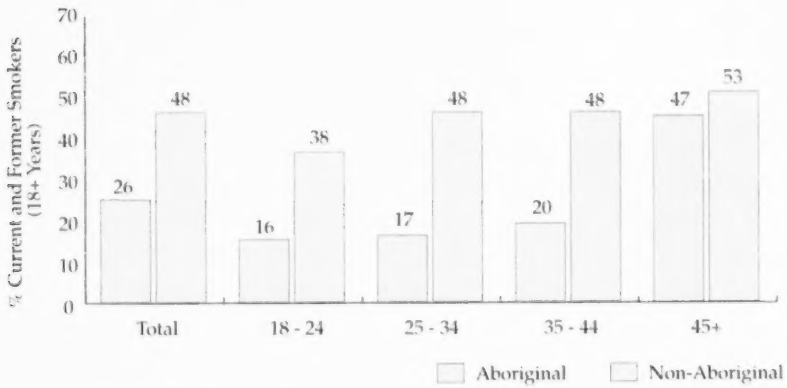
Ethnicity

Aboriginal adult smokers have a lower quit rate (26%) than do non-Aboriginal adult smokers (48%). A higher percentage of Aboriginal adults are current smokers and it seems that once Aboriginal people start to smoke they are less likely to quit.[55] This holds true for all age groups except those 45 years of age and older (see Figure 21). As well, there are significant differences in quit rates within the Aboriginal population; Inuit and Inuvialuit had an 11% quit rate compared to 31% among Dene and 27% among Métis.

The difference in quit rates between Aboriginal and non-Aboriginal smokers appears to be related to educational attainment. Aboriginal adults tend to have lower educational attainment than do non-Aboriginal adults. When education is taken into account, however, some of the differences in quit rates decrease. An estimated 24% of Aboriginal adults with less than high school have successfully quit smoking, compared to 29% of non-Aboriginal adults with the same level of education (age adjusted rates). There is no reported difference in quit rates between Aboriginal and non-Aboriginal adults with post-secondary education other than a university degree (43% respectively).

Figure 21

Quit Rates by Age and Ethnicity, NWT 1996.



Source: *1996 NWT Alcohol and Drug Survey*; NWT Bureau of Statistics

[55] According to the *1996 NWT Alcohol and Drug Survey*, an estimated 84% of Aboriginal adults and 59% of non-Aboriginal adults were either current or former smokers. Only 16% of Aboriginal persons 18 years of age and older indicated they have never smoked as compared with 41% of non-Aboriginal persons.

Living with a Smoker

Evidence suggests that successful quitters are more likely to live with non-smokers. In 1996, of the current or former smokers who lived with a spouse/partner who smoked, an estimated 23% were successful quitters. The quit rate for those who lived with a non-smoker was more than double (approximately 57%). Living in a non-smoker household is an important success factor and supports the notion that social networks play an important role in quitting smoking.

As is the case for smoking initiation, a number of interrelated factors contribute to smoking cessation. Lower quit rates among people with lower educational attainment may be associated with their social environment – home, workplace and social networks – where smoking is not actively discouraged. Alternatively, the higher quit rates among people with higher levels of education may be related to the increased number of restrictions encountered in their social environment. Successful quitters may tend to find themselves in social situations where fewer people are smoking, and where smoking is actively discouraged, either through legislation which prohibits smoking or by social norms which regard smoking as a negative behaviour.

Employing a Population Health Framework

In order to reduce smoking rates, various approaches are required in the areas of research, health promotion, policy and legislation. The current health promotion framework takes into account non-medical factors that influence smoking trends, such as social, economic and environmental factors, as well as individual-level factors including personal coping skills and accessibility to health services. While this framework builds on a comprehensive understanding of the root causes of smoking, a tobacco control strategy must also be responsive to the diversity of Aboriginal and non-Aboriginal cultures present in the Northwest Territories.

Efforts to control smoking behaviour in the NWT must emerge from a population health framework that is based on the following premises:

- Smoking is influenced by age, sex, ethnicity, community type and socio-economic status. Health promotion interventions must be developed from a population health perspective in order to effectively address these influences. In other words, smoking is not a homogenous problem that can be successfully dealt with by a single strategy.
- Health promotion strategies must be created within a socio-demographic context. Understanding the social meanings attached to smoking is key to reducing smoking behaviour. Intervention activities must be culturally specific and culturally relevant; as such they should reflect the basic values and life priorities of smokers in the NWT.
- Smoking is a multi-faceted problem and its effects are experienced on multiple levels: individual, family and community. Consequently, health promotion strategies must include multi-dimensional approaches. The health sector plays a vitally important role in health promotion and disease prevention related to smoking. However, health sector contributions will need the support and involvement of policy makers and political leaders from across all sectors of NWT society.

The following goals are proposed as a way to prevent, reduce, control and eliminate smoking and other forms of tobacco use. Each would encompass a number of stakeholders, activities, program and implementation strategies.

De-normalization *aims to change social attitudes toward what is generally regarded as 'normal' or acceptable behaviour. In the case of cigarette smoking this might involve:*

- *De-glamorizing the use of tobacco products.*
- *Debunking myths about so-called 'light' or 'mild' tobacco products.*
- *Placing increased attention on the activities of the tobacco industry.*
- *Exposing the underlying messages of tobacco advertisers.*
- *Drawing attention to other industries and organizations which support the promotion and sale of tobacco.*

Examples of social behaviours which have been 'de-normalized':

- *Failure to use safety belts and child restraints.*
- *Drinking and driving.*
- *Corporal punishment for children.*

Creating Sustainable Partnerships

Effective smoking prevention and cessation requires numerous stakeholders to work in collaboration toward achievement of these goals. This would involve the integration, coordination and implementation of complementary strategies at all levels.

Federal, territorial, local and Aboriginal governments play a fundamental role insofar as they provide leadership, direction and valuable resources required to support tobacco control, in addition to enacting and enforcing anti-smoking legislation.

At the local level, municipal governments and band councils provide the necessary supports through the development and enforcement of non-smoking bylaws.

Territorial non-governmental organizations (NGOs) advocate federal and territorial tobacco control activities by delivering programs reflective of those goals and disseminating information, materials and training to community groups working toward tobacco use prevention and cessation.

Regional health and social services boards provide community-level leadership through program delivery and enforcement of territorial legislation.

A critically important contribution is made by community/local groups who advocate for community/municipal tobacco control policies and provide support for territorial and regional-level tobacco control initiatives.

Multiple roles can be played by the private sector including promotion of positive role-modeling behaviour, support for anti-tobacco legislation and anti-tobacco media policies, as well as providing monetary support by way of grants to conduct research on tobacco use in the North.

Finally, individuals complement this multi-level coalition by volunteering time to local tobacco control groups, which often are the first to develop the steps toward a smoke-free environment at home, at work and, more broadly, within the community setting.

All partners have a vital role to play in the effort to control smoking and tobacco use in the NWT. Key to successful coalition building is an effective division of labour which targets not only groups, but also social factors which likely influence smoking behaviour.

Strategic Interventions: Targeting Groups and Social Factors

"Programs for smoking cessation need to be focused on an overall health and improvement approach rather than only a quit smoking approach."[60]

Smoking intervention programs should aim to address most, if not all, of the key elements of a comprehensive tobacco control strategy including prevention, cessation, protection and de-normalization goals. Actions which primarily address one goal, however, can also contribute to achieving other goals. Broad-based action will often work to support all four goals at once. Policy and legislation that ensure smoke-free public environments address protection from second-hand smoke, but such restriction also supports prevention by reducing role modeling of smoking as a socially acceptable behaviour. It encourages smokers to reduce smoking and provides indirect support to those individuals who want to quit. Research on what influences smoking behaviour is important as it provides information to all stakeholders and may, in fact, work to build coalitions, thereby supporting all four goals.

Tobacco control initiatives that have enjoyed some measure of success take into account educational levels, employment rates and social norms. These are key to identifying and understanding underlying causes of, for example, an adolescent's decision to smoke, a pregnant woman's inability to cease smoking all the while aware of the health risks it poses to her unborn child, or an elderly man's lifelong habit in spite of debilitating health consequences.

If health behaviours and health outcomes are strongly related to social conditions then health promotion interventions must take into account how individual-level health behaviour change can take place within the broader social context (e.g. social relationships, location of community, governmental policies).[56] One study found that different dynamics drive the smoking habits of low-income women compared to middle- and upper-income women. Results showed that lower-income women use smoking as a means of coping with economic pressures and the daily demands placed on them to care for others.[57, 58]

Clearly, public intervention must take into account the social context within which smoking behaviour takes place, and the extent to which a target group is able to benefit from such intervention. In a community where smoking is regarded as a normal activity and few people are considering cessation, increased emphasis on changing social attitudes toward smoking and tobacco use becomes a primary objective. In other communities, however, the implementation of smoking cessation programs may be identified as an appropriate priority given the higher level of motivation or readiness to quit. In so doing, health promotion strategies are contextualized in order to maximize intervention impact.[59]

[56] Emmons, Karen M., "Health Behaviours in a Social Context", in *Social Epidemiology*, Oxford University Press, New York, 2000: 242-266.

[57] Graham, Hillary, *When Life's a Drag*, Her Majesty's Office, London, 1994.

[58] See also Stewart, Miriam J. *et al.*, "Smoking Among Disadvantaged Women: Causes and Cessation", *CJNR*, Volume 28, 1996: 43-60.

[59] Prowitt, Rosa and Rick Tremblay, "Smoking from a Health Promotion Perspective", *EpiNorth*, Volume 13, Winter 2001: 6-7.

[60] Fisher, John K. *et al.*, "Healthy Behaviours, Lifestyle and Reasons for Quitting among Out-of-School Youth", *Journal of Adolescent Health*, Volume 25, 1999: 280.

Finally, health promotion activities must identify which at-risk factors predispose individuals to smoking uptake and how this behaviour is sustained by interpersonal, institutional, community and governmental forces. In an effort to educate people about the risks associated with tobacco use, studies suggest that health promotion activities go beyond generalized risk information and focus on the *personalization of risk*. Put differently, health promotion practitioners should identify specific groups and develop tailored programs that would best correspond to that group's characteristics and needs. Health risks associated with smoking need to be assessed in terms which are accessible and meaningful to a target group. Such a strategy works toward the establishment of an environment where individuals are able to make 'health significant' decisions. A concomitant strategy is to identify key individuals working within the public and private sectors, as well as within NGOs such as the Canadian Public Health Association (NWT/Nunavut Branch) and the Canadian Cancer Society, who are able to assume a leadership role and provide the skills and/or resources which support tobacco control activities.

We might do well to take our lead from tobacco advertisers themselves who can supply insights as to how to 'package' smoking prevention, reduction and cessation strategies. Tobacco advertisers have long understood the importance of appealing to specific consumers (social groups) with positive images of healthy, vibrant and intelligent people (social factors). For those working within health promotion, this may mean presenting anti-smoking information in a manner which inspires a commitment to health and not merely anxiety or denial on the part of smokers. Part of the challenge, then, is to develop socially appealing anti-smoking messages, images and programs that can accomplish this goal.

The prevention, reduction and elimination of smoking behaviour and tobacco use in the NWT will be a challenge. A significant decrease in smoking behaviour can feasibly take place only over an extended period of time given the current pervasiveness of smoking. *Smoke Alarm* provides information about high-risk groups vulnerable to tobacco use and highlights the social conditions which predispose individuals to smoke. Taken as a whole, this document will provide a blueprint upon which to base future action, and a baseline upon which to evaluate the success of these actions.

Concluding Remarks

This report offers a graphic picture of the nature and extent of smoking behaviour, and its adverse health consequences, in the Northwest Territories. Smoking-related diseases are among the most preventable of all diseases, and as the title suggests, this report should serve to alert us to the fact that smoking is one of our major public health issues.

If the knowledge that smoking causes illness, disease and death is enough to make people quit smoking, then this report may save some lives. However, for a significant number of smokers, knowledge about the adverse effects of smoking has very little impact on their smoking behaviour. Tobacco is addictive and, as with other addictions, denial is a powerful force that helps to maintain a smoker's health-threatening behaviours. To make matters more complicated, information in this report suggests that smoking is considered a normal, socially acceptable behaviour in many parts of the NWT. In this respect, adult and youth smokers are acting as role models for children, who are taking up smoking in increasing numbers.

Historically, Aboriginal people did not smoke. While tobacco was, and continues to be, used for ceremonial purposes by many Aboriginal people, there is a vast difference between the use of tobacco in a spiritual or social ceremony and the habit of smoking a package of cigarettes every day. We may retain the traditional use of tobacco, while being rid of the latter.

This report will raise many questions. Why do Northerners smoke more than other Canadians do? Why is there such a difference in smoking rates between Yellowknife and the smaller communities in the NWT? What leads a person to quit smoking? Which factors are responsible for making some people more successful at quitting than others? Since smoking is a behaviour of personal choice, there are as many answers to these questions as there are smokers.

Smoke Alarm has not answered all these questions. However, by examining smoking patterns in the NWT, the report offers valuable clues as to where the search for answers should begin. The facts and figures presented also provide an essential baseline against which the government will be able to measure the performance of programs and services directed toward smoking prevention, reduction and cessation.

This report provides a road map that identifies both the challenges and opportunities on the path to a sustained decrease in smoking rates for all segments of the NWT population. Failure to initiate effective smoking prevention, reduction and cessation programs will mean that a significant proportion of Northerners will never achieve an optimal state of health or of lifespan. As it stands at the moment, smoking in the NWT will result in a decrease in human productivity, an increase in economic costs, and a substantial increase in health care costs. Thus, the intent of *Smoke Alarm* is to provide health practitioners with a useful framework which can be drawn upon to develop a long-term, comprehensive strategy of tobacco control in 'sync' with northern smoking patterns.

Convincing young people not to start smoking and helping smokers to quit are challenging tasks. Nevertheless, the future of almost half the population in the Northwest Territories depends on our ability to meet these challenges, and to become a smoke-free society.

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Chief Medical Health Officer (NWT)

For more information or to request a copy of "The Facts About Smoking in the NWT", please contact the Research and Analysis Unit, Department of Health and Social Services at (867) 920-8946, or visit the Department's Web site at http://www.hlthss.gov.nt.ca.